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ABSTRACT

Two models based on the use of manpower data are presented in this report. They offer guides for (1) the development of a ten-year master plan and (2) the development of curriculums as appropriate, based on the time schedule of that master plan. The College Master Plan Model presents two aspects of college master planning which are divided into the following sections: (1) State Planning Context (legislation and budget notes; community college legislation; Educational Coordinating Commission plans, rules, and regulations; State Department of Education plans, rules, and regulations; and community college board and administration); and (2) College Planning Cycle (college master plan; college planner and planning team; mission and purposes; problems and solutions; outcome goals and priorities, institutional research--data input; objectives and programs; production of master plan document; approval of master plan document; and revision and extension). The Curriculum Planning Model is then described in the following sequence: college master plan; idea proposal; the committee; institutional research; development team; office of instruction; operational units; implementation; evaluation; and revision. Each model is accompanied by a flow chart. (BL)

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Procedures for Community College Planning and Curriculum Development

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

Developed Under the Grant

Models for the Use of a Data Base in Planning State and Local Vocational Programs

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INTRODUCTION

The Process

Planning for the delivery of educational services through Oregon Community Colleges involves an entire process, beginning with the state and local context in which the planner works and ending with the operation of the course or program at the local level. The complete process must be dealt with from beginning to end in order for it to work smoothly, effectively and efficiently. Since parts of the process are interrelated, no part can be effectively isolated from the others. Yet, the spotlight must be focused on each part in order to understand how they fit together as a whole.

Two Major Divisions of the Process

The system may be divided into two major divisions: one dealing with the extended future and the other with the present and immediate future. For lack of better terms, the first might be called long-range program planning or master planning, and by this we mean that program planning must be considered as a part of master planning. The second may be thought of as curriculum development and implementation. Due to the mission of community colleges to serve local needs and the rapid rate at which changes occur locally, the two divisions overlap considerably since long-range decisions must be re-evaluated before development and implementation can begin.

Both program planning (long-range) and developmental decisions must be carefully delineated throughout the process and only data critical to each decision should be gathered at that time. Otherwise, unnecessary expense will be generated in the event a program proposal is aborted. Therefore, any model or models for program planning and development must be flexible and allow for human judgment in their application. They must not be a series of hoops through which people jump.

Two Models Representing the Major Divisions of the Process

These principles have been carefully considered in both of the models presented in this paper. The first which is the long-range program planning or master planning model deals with the decisions and data needs for the extended future. The second which is the curriculum development and implementation model deals with the decisions and data needs for the present or immediate future.[1] A common element for both is the institutional research function which supplies data for both.

Simply stated, the two models are guides for (1) the development of a ten-year master plan and (2) the development and implementation of curricula, as appropriate, based on the time schedule of that master plan. For example, the master plan may call for the implementation of a certain vocational program in the sixth year. As that time approaches the curriculum will have to be developed, and it will be necessary to again validate the need for the program. If the need has disappeared, the program should be dropped. If the need is still present, a different series of decisions and data are required for developing the curriculum and implementing the program.

The following models are not designed to bind a college into a lock-step planning and development process. Rather, they are guides to highlight critical decisions and data needs so that both planning and development decision making may be more accurate and effective. Colleges that utilize these models will need to make whatever changes they find necessary to adapt to their particular organizational structures and problems.

The Audience

These models have been developed primarily for use by college planners. Therefore some of the concepts and terminology may be unfamiliar to others who are not experienced in college planning. If these individuals need to use the models, they may wish to consult a college planner for assistance. Small colleges will not likely have full-time planners and other positions mentioned in this document; however, someone will perform the functions in the process of developing plans and curriculum. These instructions are also addressed to such individuals.

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[1] In the flow charts and discussion to follow, the two models are referred to as (1) Part A, College Master Plan Model, and (2) Part B, Curriculum Planning Model.

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Part A
College Master Plan Model

PART A, COLLEGE MASTER PLAN MODEL

INTRODUCTION

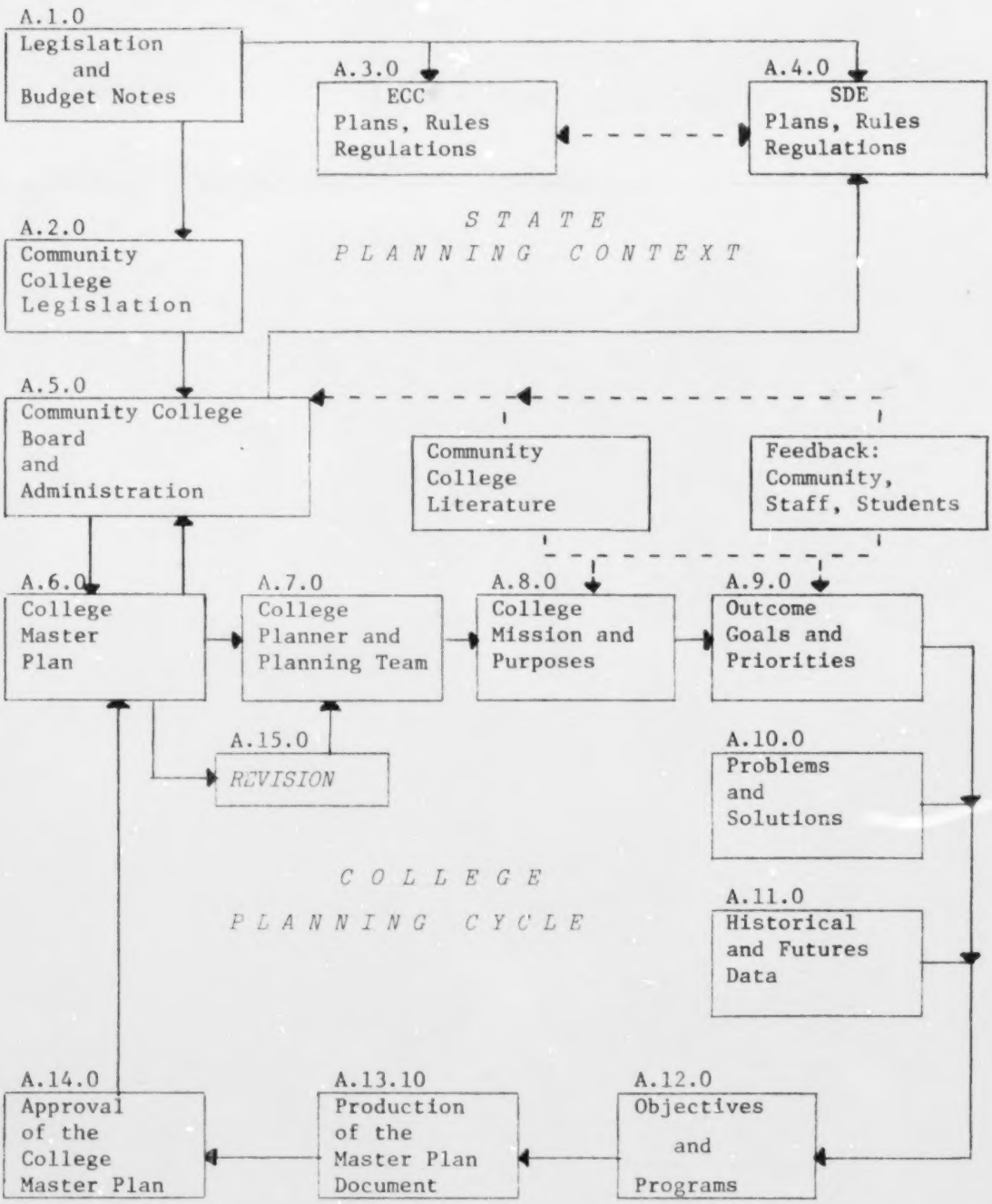
The College Master Plan Model has been developed for use by community college planners in long-range program planning or master planning. As the flow chart on the following page indicates, there are two aspects of college master planning, the state planning context and the college planning cycle.

The state planning context consists of data and requirements which may become influential inputs into the content of the College Master Plan. It culminates in the requirement of a College Master Plan by the Community College Board and Administration, which then delegates the responsibility to a college planner, assisted by a planning team.

The college planning cycle is the process whereby the college planner (in consultation with the planning team) considers information and requirements from the state planning context together with historical and futures data to form the content of the College Master Plan. The completed College Master Plan is presented for approval to the Community College Board and Administration which in turn sends a copy to the State Department of Education.

COLLEGE MASTER PLAN MODEL

CONTEXT AND CYCLE



Action Lines ———
Communication Lines ------

EXPLANATION OF COLLEGE MASTER PLAN MODEL

STATE PLANNING CONTEXT

The State Planning Context contains many vital sources of information for use by the college planner during the College Planning Cycle in formulating the College Master Plan. The planner needs to be aware of all of the data sources and influences, but must use good judgment in reaching conclusions based on that input.

A.1.0 Legislation and Budget Notes

Legislation and Budget Notes from the state legislature authorize the operation of the community college, make financial provision for its operation, and designate its role in the state plan for education. That portion of this legislation which determines the parameters of the college's mission and operations is designated in this model as Community College Legislation (A.2.0).

A.2.0 Community College Legislation

Community College Legislation is a compilation of the requirements with which the College Master Plan must conform. It ensures that all community colleges in Oregon play the same basic role. Some major concepts in the legislation are:

1. All Oregon youth 16 years of age and older who can profit are entitled to the opportunity of at least two years of college level education.

2. These educational offerings shall be readily available by the location of community colleges near all major centers of population.

3. These educational offerings shall be made available at the lowest possible cost to residents of the district so that few, if any, will be deprived of post-high school education because of limited ability to pay.

A.3.0 Educational Coordinating Commission's (ECC) Plans, Rules and Regulations

Educational Coordinating Commission's Plans, Rules and Regulations monitor the educational system in the state at all levels. The Commission recommends funding levels and formulae for each educational segment, and resolves duplications and inconsistencies within the educational system. These influence the College Master Plan through:

1. A master plan for education in Oregon.

2. Recommendations to the State Board of Education regarding program allocation.

3. Recommendations to the State Board of Education, the Governor and the Legislature on proposed budgets.

4. Evaluations of both new and existing programs.

5. Information for all educational institutions.

A.4.0 State Department of Education (SDE) Plans, Rules and Regulations

State Department of Education Plans, Rules and Regulations provide statewide planning, information and leadership for elementary, secondary and community college instruction. They require the community college to produce the information contained in the College Master Plan. They also influence the content of the plan through interpretation of Community College Legislation.

A.5.0 Community College Board and Administration

The Community College Board and Administration are held responsible by the Community College Legislation for governing and administering the operations of the college. As such, they are aware of and influenced by the entire Planning Context including the literature on community colleges and feedback from community, staff and student members. (Note dotted communication lines in the flow chart).

COLLEGE PLANNING CYCLE

A.6.0 College Master Plan

The College Planning Cycle begins with the Board and Administration assigning responsibility for the development

of a College Master Plan to the college planner, assisted by a planning team (A.7.0). In constructing this plan, all information from the State Planning Context (A.1.0 - A.5.0) will be considered, including any "givens", which are predetermined requirements for the College Master Plan from the Board and Administration. As the development of the plan progresses, additional data will be used to improve the accuracy of the plan.

When completed, the College Master Plan will serve as as general guide for the operation of the college during a ten-year period with more specific guidelines for the first four years. In addition, it will serve:

1. To unite community, staff and student members through common goals and directions.

2. To assist in planning college activities and budgets.

3. To substantiate the need for the college budget.

4. To boost staff morale through perceived progress toward accepted goals.

The College Master Plan will consist of:

1. Mission and Purposes (A.8.0)

   The Mission is a broad philosophical statement covering the entire role of the college. Purposes are, again, broad statements highlighting major parts of the Mission.

2. Outcome Goals and Priorities (A.9.0)

   Outcome Goals are more specific statements of the desired Outcomes for each of the Purposes. Priorities refers to the value or priority ordering of Outcome Goals.

3. Problems and Solutions (A.10.0)

   Problems and Solutions represents a separate effort to identify problems perceived by staff, students and community members, and their potential solutions.

4. Historical and Futures Data (A.11.0)

   These are data concerning the past and future that are collected by Institutional Research for use in the development of Objectives and Programs (A.12.0).

5. Objectives and Programs (A.12.0)

   Objectives and Programs are the specific, measurable objectives that are arrived at through the synthesis of Outcome Goals and Priorities, Problems and Solutions, and Historical and Futures Data.

The components of the College Master Plan may be viewed as a progression of goals from general to specific. Breaking out goals in this fashion allows the College Master Plan to be used:

1. In guiding the wide variety of college activities.

2. In establishing an effective priority system upon which budgets may be based.

3. In measuring progress toward broader goals by the accumulated effect of achieving objectives and more specific goals.

The college planner should be aware that although breaking down goals from the general to the specific level is necessary for an effective College Master Plan, asking people to react to such an hierarchy will only result in confusion. Instead, only Outcome Goals (A.9.0) should be used when they are to be examined by staff, students and community members.

When the College Master Plan is intially constructed, Mission and Purposes, Outcome Goals and Priorities, Problems and Solutions, and Historical and Futures Data encompass a ten-year span of time. Objectives and Programs are formulated for the shorter period of four years.

A.7.0 College Planner and Planning Team

The college planner initially prepares each part of the College Master Plan requested by the community college's Board and Administration. The members of the planning team serve in an advisory and evaluative capacity.

Qualifications

1. College Planner

   The college planner is a person designated by the college to serve it in a planning capacity because he or she has expertise in college planning. Such persons may or may not serve as full time planners.

2. Planning Team

The planning team consists of representatives of the college administration, faculty, classified staff, students and community. If it is to function effectively it should be small, with no more than five to seven members. Such a group could function as an executive committee for a larger committee if desirable.

Some colleges may wish to establish an additional planning team composed entirely of community members to advise the above planning team.

Role

1. College Planner

In accepting primary responsibility for developing and maintaining the College Master Plan, the college planner shall:

a. Facilitate the appointment of the members of the planning team.

b. Chair the meetings of the planning team.*

c. Develop a plan of action for the planning team.

d. Develop the various parts of the Master Plan for input and evaluation by the planning team.

2. Planning Team

Representatives of the college administration, faculty, classified staff, students and community shall:

a. Advise the college planner during the preparation of the College Master Plan.

b. Evaluate and provide input on each part of the College Master Plan as it is being developed.

*Under many circumstances it may be preferable that this function be performed by the college's president.

A.8.0 Mission and Purposes

The first step in the development of the College Master Plan is preparation of the statements of Mission and Purposes.

Definition

The Mission is a philosophical statement of the role and values of the community college. It is followed by a statement of Purposes, in which the planner highlights aspects of the Mission by separating it into individual statements. They are stated broadly as on-going conditions that must continue to exist if the college Mission is to be maintained.

Production

Procedures: The following are suggested procedures for developing the statements of Mission and Purposes.

1. Collect all of the published statements related to the Mission and Purposes. Reduce these to a single statement of Mission that expresses the status quo.

2. Review the Sources of Information given below for ideas which should be included in the Mission statement.

3. Develop a rough draft statement of Mission, using information from steps 1 and 2.

4. Present the statements developed in steps 1 and 3 to the planning team and seek its input in completing a temporary statement of Mission.

5. Develop a statement of Purpose for each aspect of the statement of Mission.[1]

6. Present the statements developed in step 5 to the planning team and seek its input in completing temporary statements of Purpose.[2]

---

[1] The use of the word temporary indicates that revision may be necessary in completing Objectives and Programs (A.12.0).

[2] Same as footnote (1) above.

Sources of Information: The following are sources to be utilized in the formation of the Mission and Purposes.

1. General philosophy of the community college, as found in the community college literature.

2. Unique aspects of the particular community college.

3. Characteristics of the community.

4. Parameters of community college mandates arising from legislative action, community pressure, and Board and administrative decisions.

5. Values and needs of school personnel and community.

6. Purposes toward which school personnel are working.

7. Allocation and uses of community college funds in the past.

8. Commitments of school personnel and community.

Utility

The Mission serves to interpret the role of the college based upon the expectations of the people in the district and the parameters of Community College Legislation. The Purposes further clarify the various aspects of the Mission. Together, the Mission and Purposes provide both community members and staff with a common basis for their general expectations of the community college.

A.9.0 Outcome Goals and Priorities

At the same time that the Problems and Solutions (A.10.0) are being identified and the Historical and Futures Data (A.11.0) are being collected, the college planner is using the completed Mission and Purposes to develop Outcome Goals and Priorities.

Definition

Outcome Goals identify end conditions or products to be achieved and/or maintained. Priorities refers to the value or priority ordering of Outcome Goals.

Production

Procedures: Outcome Goals are produced by developing statements concerning each purpose that specifically describe the end conditions or products that must be produced in order for the achievement of a single Purpose. To accomplish this, Outcome Goals should:

1. State only one complete condition for each goal.

2. Be parallel in statement.

3. Be mutually exclusive.

In developing Outcome Goals, the college planner:

1. Develops an initial list of Outcome Goals in consultation with the planning team.

2. Submits the resulting list to staff, students and community groups for reaction and rating in terms of priority. (An "is" and "should be" format may be utilized).

3. In consultation with the planning team, analyzes the feedback of staff, students and community groups, and rewrites the Outcome Goals and assigns values to them in preparation for the Objectives and Programs (A.12.0) phase.

Sources of Information: The following are sources to be utilized (if readily available) in the formation of Outcome Goals.

1. State requirements for outcomes.

2. Value statements by students, staff and community members.

3. Staff goals inventory.

4. Needs assessment data concerning student and community needs.

5. Other pertinent data to which the college planner and planning team members have access.

Utility

Outcome Goals are the most specific of the statements of value. They provide the college with a means of assigning priorities and tying the budget to the goal system. When they are integrated with the historical and futures data, feasible or realistic objectives can be developed.

A.10.0 Problems and Solution

Definition

Problems and Solutions represents a separate effort to identify problems perceived by staff, students and community members, and their potential solutions.

Production

One suggested way of identifying perceived problems is through the use of a modified Delphi technique, which may be started either with asking people to identify problems/issues or with a previously prepared list.

Upon identification of problems with a significant level of agreement, alternative solutions need to be identified and selected.

Utility

The perceived Solutions are then available for eventual consideration in planning Objectives and Programs (A.12.0).

A.11.0 Historical and Futures Data

In addition to providing any needed data for use in the development of Outcome Goals and Priorities (A.10.0), Institutional Research is concurrently collecting data to be used in the development of Objectives and Programs (A.12.0). These data are of two types:

1. Historical

   Examples of historical data include program costs, enrollments, student and staff ratio, and instructional support data, e.g. library, counselors.

2. Futures

   Examples of futures data include district population projections, inflation data, resource projections and manpower data (job and training projections, supply and demand). These data should cover the entire ten-year period of the Master Plan and significant portions must be included in the published document.

A.12.0 Objectives and Programs

Objectives and Programs are the last part of the content of the College Master Plan to be developed. They involve the specific, measurable Objectives to be achieved within the first four years of the Master Plan and the Programs designed to achieve them.

Definition

Objectives are specific, measurable statements of things to be achieved in order to maintain the end states and conditions described in the Outcome Goals (A.9.0). They cover only the first four years of the Master Plan. Programs are the clusters of inter-related activities which are designed to achieve the Objectives.

Production

As this process is quite complex, a detailed plan of action is most difficult. The major things to be achieved in order to arrive at a set of Objectives and Programs are:

1. To weigh the Outcome Goals and Priorities, Problems and Solutions, and Futures Data against each other using standards from the Historical Data and to integrate them into a feasible set of objectives and accompanying programs. This may be accomplished by using a variety of analytical techniques which allow for a full investigation of most of the possibilities.

2. To develop Objectives under each Outcome Goal which correspond with the most favorable integration of the data and check the results with the planning team.

3. To develop a description of the most appropriate programs for each Objective and secure feedback from the affected organizational units.

4. To finalize the Objectives and Programs with the planning team.

5. To develop a section in the Master Plan that includes the pertinent Futures Data for the ten-year period and the assumptions and data upon which the Objectives were based.

6. To make necessary revisions in the Priority Ratings, Outcome Goals, Purposes and Mission in consultation with the planning team.

Utility

Thus, the Objectives and Programs produced include both the on-going and future projections for development. At that time when a projected development is immediately contemplated, projection data must be re-confirmed. This will take place in Part B, Curriculum Planning Model.

A.13.0 Production of Master Plan Document

Upon the completion of Mission and Purposes, Outcome Goals and Priorities, and Objectives and Programs, their integration into the College Master Plan document is accomplished when the college planner in consultation with the planning team:

1. Determines the format of the document.

2. Does the final editing and placing of materials into the document, according to the format decision.

3. Has the document reproduced.

A.14.0 Approval of Master Plan Document

To obtain approval of the College Master Plan document, the college planner:

1. Presents the document, together with the planning team's recommendation, to the community college administration and Board.

2. Makes any necessary revisions.

3. Receives adoption of the plan from the community college's Board.

4. Sends a copy to the State Department of Education and to appropriate people on and off the campus.

A.15.0 Revision and Extension

Every two years the college formally revises and extends the entire ten-year College Master Plan, going through the same steps as in its initial development. To revise and extend the plan, the planner:

1. Revises the remaining eight years of the projections and assumptions (A.8.0 and A.9.0) and the two years of Objectives and Programs (A.10.0).

2. Extends the eight years of projections and assumptions to ten years, and the two years of Objectives and Programs to four years.

Conclusion

Even though it may appear from the College Master Plan Model that planning takes place only in specific steps at specific times, in reality planning is a continuous process. This model serves to document only the formal steps which are a part of continuous planning.

Part B
Curriculum Planning Model

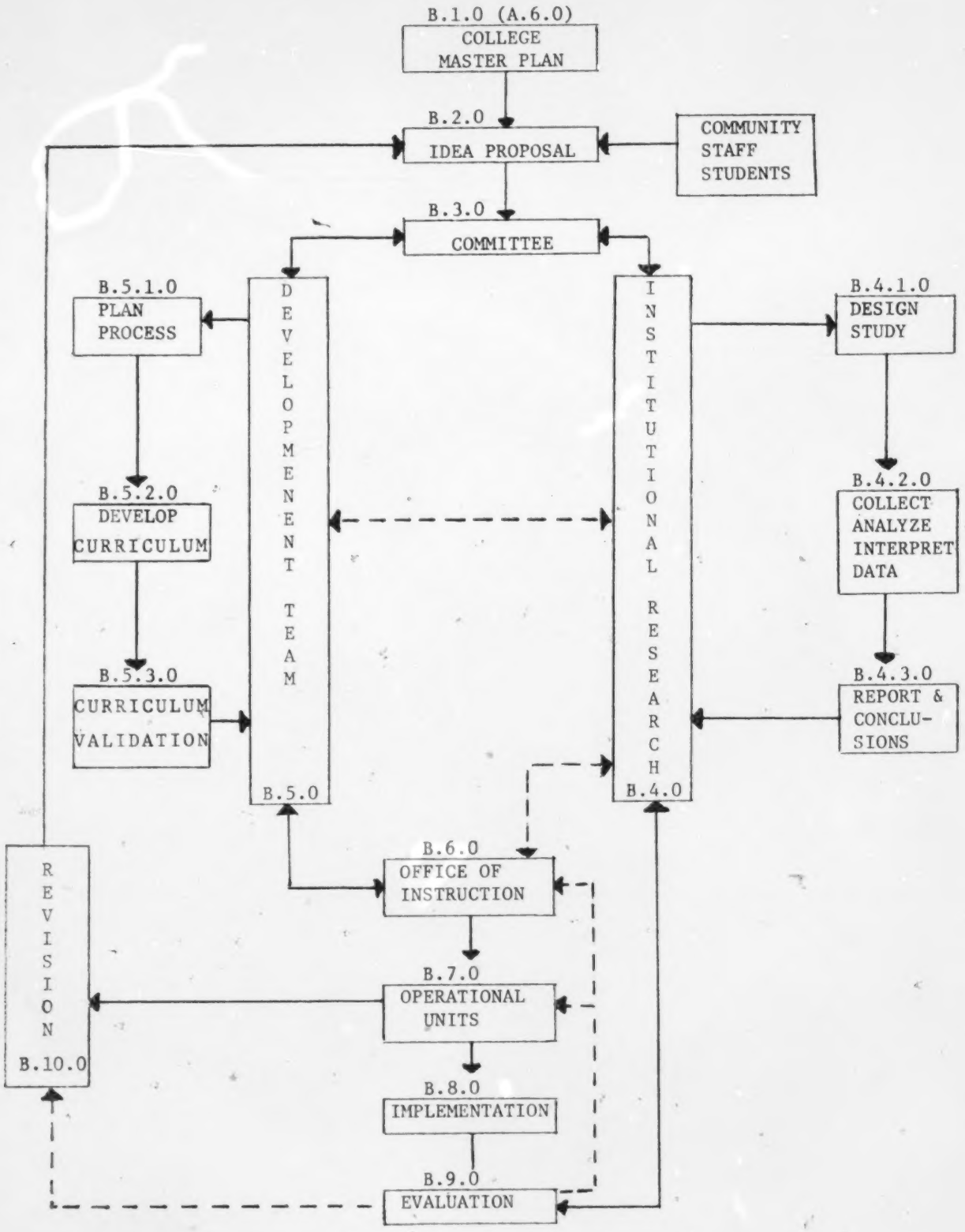
PART B, CURRICULUM PLANNING MODEL

INTRODUCTION

Whereas, Part A, College Master Plan Model described curriculum planning from two to ten years in advance of actual development, Part B, Curriculum Planning Model describes procedures immediately preceding and during curriculum development. It is a description of the basic processes through which proposed vocational curriculum passes from the time the initial idea is conceived and incorporated into the College Master Plan until the classes are in actual operation and their educational effectiveness evaluated. It has been developed according to the following principles:

1. Use of appropriate data in decision-making,
2. Flexibility in process and judgments,
3. Simplicity,
4. Appropriate expert input,
5. Designation of decision responsibility, and
6. Uniform opportunities, procedures and reconsideration.

CURRICULUM PLANNING MODEL



Action Lines ———
Communication Lines - - -

B.1.0 College Master Plan

The College Master Plan is a general guide for the operation of the college during a ten-year period, with a more specific guide for the immediate four-year period. It consists of long-range projections of need (the assumptions on which goals are developed) and goals, objectives and major programs. Its development procedures and contents are specified in Part A, College Master Plan Model.

B.2.0 Idea Proposal

The Idea Proposal is the form in which an idea for curriculum development is initially presented for consideration.

Sources

1. College Master Plan
2. Community Members
3. Staff Members
4. Students

Format

1. Title
2. Brief Description
3. Rationale
4. Implementation Date
5. Signature of Department Chairperson
6. Signature of Person Submitting Proposal

Submission

1. Many such ideas will have been included in the College Master Plan.

2. To insure the implementation of an idea from the College Master Plan, a proposal to implement it should also be submitted to the Committee (B.3.0).

B.3.0 The Committee

The Committee is the administrative body which coordinates and processes the Program and Curriculum Planning Model.

Membership

The membership of the Committee may vary in the context of each community college, but a suggested representation for balance of power is:

1. Two administrators at the dean level, one in addition to the instructional dean.

2. Two faculty members selected by appropriate faculty bodies.

3. Two students.

Functions

The following two lists describe the decisions and actions of the Committee on (1) new programs and courses, and (2) revisions of programs and courses.

1. New Programs and Courses

	Decisions	Actions
a.	Examine the Idea Proposal to determine whether it merits further consideration.	(If the decision is not (to consider further, (return the Idea Proposal to the sponsor (with an explanation.
b.	Determine conformity of the proposal with the College Master Plan. (Applies to new programs only.)	
c.	Determine conformity of the proposal with current college goals and priorities.	
d.	Determine data needs and criteria for making a decision about implementing the proposal. (See appropriate data checklist, (B.4.2.1 - B.4.2.7).	(If data are needed, (request them from (Institutional Research.

e.	Decide whether to implement the proposal.	(If the decision is to (implement, refer pro- (posal to Office of In- (struction (B.6.0) for (preparation and sub- (mission as a Notice of (Intent to the State De- (partment of Education (for approval. (Applies (to new programs only.) (If the decision is not (to implement, return (the proposal to the spon- (sor with an explanation.
f.	Determine whether and how to fund the proposal.	(Possible actions result- (ing from a decision to (fund are (1) initiate (procedures for allocation (from the college budget, ((2) apply for funding (from another source, and ((3) approve released time.
g.	Appoint Development Team chairperson.	
h.	Determine skills and expertise needed on the Development Team.	(Through joint consulta- (tion with the chair- (person, arrive at skills (and expertise needed by (the members to be chosen (by the chairperson for (the Development Team.

2. Revisions of Programs and Courses

	Decisions	Actions
a.	Examine Idea Proposal with its accompanying evaluation report to determine if revisions seem justified.	(If the decision is that (revisions are not justi- (fied, return the Idea (Proposal to the sponsor (with an explanation.
b.	Decide whether there are unanswered questions about the revision that constitute data needs.	(If data are needed, re- (quest them from Insti- (tutional Research.

c.	Decide whether to implement the proposal.	(If the decision is to (implement, refer propos- (al to Office of Instruc- (tion for preparation and (submission as an appli- (cation to the State De- (partment of Education (for approval. (If the decision is not (to implement, return the (proposal to the sponsor (with an explanation.
d.	Determine whether to, and how to, fund the proposal.	(Possible actions result- (ing from a decision to (fund are (1) initiate (procedures for alloca- (tion from the college (budget, (2) apply for (funding from another (source and (3) approve (released time.
e.	Decide if there is a need for a Development Team.	(If the decision is that (there is no need for a (Development Team, an (alternative action is (to approve released time.
f.	Appoint Development Team chairperson.	
g.	Determine skills and ex- pertise needed on the Development Team.	(Through joint consulta- (tion with the chairper- (son, arrive at skills (and expertise needed by (the members to be chosen (by the chairperson for (the Development Team.

B.4.0 (A.9.0) Institutional Research

Institutional Research performs the support function of collecting, analyzing and interpreting data requested by the Committee and by the Development Team as a basis for their decisions. Its method of operation may be summarized as follows:

B.4.1.0 Design Study

Develop a plan of action for gathering data to answer the questions asked.

B.4.2.0 Collect, Analyze and Interpret Data

Collect necessary data and analyze and interpret them to answer appropriate questions. This data may be classified as follows:

B.4.2.1 Manpower Data Files

Manpower Data are basically that information that relates to supply of and demand for trained workers in various job categories. Usually, this information is considered separately on a local, statewide, regional, and national basis. Also relevant to this supply/demand picture is whether the data provided are projected for a long-term period, such as five years or more, or for a shorter period.

The value of Manpower Data to the decision-maker is often directly tied to how recently the information has been collected and organized. Because of the time lag in the publication process, Manpower Data in printed form may frequently be two or three years old the day they are received. The unqualified use of these data by the decision-maker could lead him or her to make entirely erroneous supply/demand forecasts and conclusions. Such information in bound form, however, can be very helpful in checking long-range Manpower needs against locally generated data. Such data as can be obtained from Employer Groups and from Cooperative Work-Study Coordinators are almost always entirely current, and its validity is very high.

Colleges often fail to recognize that they are but one of many educational agencies training workers for specific fields of employment. While the employer demand for workers with these specific job skills may be brisk, if too many agencies train too many students for these job openings, it becomes obvious that not all students will find employment upon completion of their training.

A final consideration is the "lead time" required from the point where a training need is first determined, through the development of a training plan, to that of the final implementation of the training program. The elapsed time may be as long as eighteen months to two years, and the training program itself may require as long as two years. Meanwhile, employers may be demanding new job skills of their employees. Because of the time involved in preparing a training program and then training vocational students until qualified for employment, occupational programs should ideally be limited to vocational areas having long-term stability in employment and future growth potential; however, there are important exceptions to this generalization.

A. Checklist

Would this training allow graduates to improve their job mobility?

What is the demand for trained workers in each occupational category?

What is the supply of trained workers in each occupational category?

Are the demand and supply data primarily local, state-wide, or national in their scope?

Are the wages and other inducements sufficiently high to attract an adequate supply of workers?

Will the training of present workers enable them to qualify for higher paying jobs?

What is the short-term projection of the relationship of demand to supply in the occupational area under consideration?

What is the long-term projection of the relationship of demand to supply in the occupational area under consideration?

What are the specific job skills which students must acquire prior to placement in this vocational field?

How long will it take the average vocational student to acquire these necessary job skills?

What are the possibilities that the demand for workers in a specific occupational field might sharply decrease or even disappear before a substantial number of students could be trained and placed on the job?

What change in position and responsibilities would graduates be expected to experience due to this training?

B. Sources

State Employment Service

Because of the particular way in which this agency is organized and operates, its Manpower Data are most complete and valid at the state and regional level. Since many employers prefer not to channel requests for workers through this agency, accurate information at the local level is difficult to obtain, and may even be misleading.

Oregon Educational Coordinating Commission

This agency was restructured by the 1975 Legislature, and its authority expanded. Educational institutions in the public sector are required to provide the ECC with data on enrollments and placements. However, private schools only provide such information on a voluntary basis, and the data may be incomplete for this reason.

State Department of Education

This agency has access to information from both of the above sources. It also develops and interprets its own data from a variety of sources, and programs the state computer network known as CPPS which provides frequently updated Manpower Data particularly oriented to the needs of educators making program and curricular decisions.

State Board of Education Survey

The Board of Education conducts an annual survey of employment trends, and distributes these data to educational agencies.

Employer Groups

Employer groups, such as local automotive dealer associations, provide timely and effective Manpower information obtained through their local and regional contacts. Their information is frequently of greater scope and of wider viewpoint than that provided by advisory committees.

Advisory Committees

Most Oregon community colleges make extensive use of advisory committees in the vocational fields in which they offer training. Members are usually key employers or highly qualified employees in local business or industry. Their viewpoint is more oriented toward their specific business than that of most employer groups.

Cooperative Work Experience Reports

The regular and frequent reports submitted by Cooperative Work-Study Employment Coordinators have been widely used at Lane Community College because of their currency and high validity. They represent the latest information from over 700 employers within the college district.

Feedback From Employers

This is a very valuable Manpower Data source since it provides the college with current information as to how well its trainees are succeeding on the job. Also, data are obtained as to new job skills that will be required in the future.

Feedback From Former Students

Valuable information is frequently obtained from employed graduates who report on skills they lacked on their first jobs, and which future students should obtain while in training.

Occupational Outlook Handbook

Like many other published materials dealing with Manpower Data, most information in this standard publication is two or three years old before the book is printed. However, it provides a valuable cross-check on data obtained from other sources; also, it is valuable for its long range forecasts.

B.4.2.2 Student Data Files

Academic Background

Work Experience Background

Educational Level

Reading Level

Inherent Capacity

Occupational Field of Choice

Presently Employed: Unemployed

Able to Attend Full-Time; Part-Time

Hours Available for Training

Presently Attending; Never Attended

Avocational Interests

Drop-Out Rate; First and Second Year

A. Checklist

What are the characteristics of the "target group" for this particular program?

From where will students be recruited?

What will be the proportion of "new" to that of "existing" students in the new program?

What is the anticipated student composition?

Will the student be able to attend classes at the hours at which they are offered?

What will be the criteria for admission to the program?

Will the student require financial assistance while in training?

What is the student interest in proposed classes and programs.

B. Sources

College Records (student records, student testing)
Questionnaires
Community Surveys
Student Interviews

B.4.2.3 Staff Data Files

Present Faculty Members Interested in New Programs

Their Academic Background

Their Work Experience Background

Special Licenses or Certificates Held

Status: Continuing Contract or Probationary

Current Salary Level

Current Fringe Benefits

Impact of Re-Assignment on Existing Programs

Job Applications From Instructors not on Present Staff

A. Checklist

What will be the effect on present college departments of assigning some of their instructors to the new program?

How many properly qualified members of the present staff are interested in, and available for, reassignment?

Will staff members in the new program need to acquire any special certificates or licenses to qualify?

Will the transfer of part-time or probationary teachers to full-time status in the new program create problems if "reduction in force" becomes necessary?

If necessary to employ instructors not on the present faculty: Are they readily available? Will they need any special training?

B. Sources

Personnel
Business Operations Records
Instructional Records
Institutional Research Records
Program Evaluation Records
Staff Interviews

B.4.2.4 Facilities Data Files

Classroom and Lab Facilities Available

Facilities Available at a Suitable Time

Cost of Constructing New Training Facilities

Appropriate Training Equipment Available

Instructional Supplies on Order or at Hand

Ultimate Growth Potential of New Program

A. Checklist

Will it be necessary to construct a new facility to provide classroom and lab space for the new program?

Is the training equipment available typical of that currently used by modern industry, or is it obsolescent or obsolete?

If the present training equipment is obsolete, are there funds available to lease or purchase new equipment?

Has the possibility of conducting the new training program in space provided by a local industry been explored?

If necessary to purchase new training equipment, will it arrive before classes start?

What will be the ultimate potential of this program to the college in terms of enrollment, staff and facilities required, and the overall cost of its operation?

B. Sources

Plant Services
Instructional Operations
Institutional Research
Program Evaluation Records
Facilities Planning
Advisory Committees

B.4.2.5 Program Data Files

Current Resources of the College

Projected Resources of the College

Projected Student Enrollments

Projected Expansion of Teaching Faculty

Impact of New Program on Existing Programs

Existing Courses to be Used in New Program

Expected Educational Outcomes of Program

Changing Job Preparation Requirements

Changes in Student Interest and Goals

Program Offered Every Year, or Occasionally

A. Checklist

How large can this program grow without affecting the quality and vigor of existing programs?

What FTE may be expected?

How extensively can existing courses and curricula be used in structuring the new program?

Are there similar programs operating in Oregon in private or public agencies?

What is the impact of the program on existing programs and courses: (a) enrollment, (b) number of courses added, (c) FTE generated for other departments?

What minimum and maximum enrollments may be expected?

Will this be a preparatory or a supplemental program?

Will the new program have to be offered every year, or could it be offered less frequently?

What will be the effect of the new program on other schools in the state offering basically the same training?

How will we determine if the planned outcomes of the proposed program will be achieved?

What revisions or changes in present vocational programs are necessary to meet changing job skills in industry?

B. Sources

Institutional Research
Instructional Operations
Program Evaluation Records
Personnel Records
Student Records
State Department of Education
Educational Coordinating Commission

B.4.2.6 Financial Data Files

Present and Projected Costs of Proposed Program

Cost/Benefit Ratio of Proposed Program

Comparisons Between "Start-Up" and Operational Costs

Appropriate Funds That can be Diverted to This Program

Impact on Existing Programs of Such Fund Diversion

A. Checklist

What will be the projected cost per FTE to operate the new program?

By what factor will the program's projected income be greater than, equal to, or less than its operational cost?

Will the new program require the construction or leasing of new facilities, or can present ones be used? What will be the cost?

Can the new program's operation be justified on its cost/benefit ratio? Is it cost effective?

Will implementing the proposed program weaken existing programs of the college or limit their expansion by weakening their financial support?

Will special fees be charged which will offset part of the operational cost?

What will be the amount of start-up costs?

B. Sources

Institutional Research Records
Program Evaluation Records
Instructional Operations Records
Business Operations Records

B.4.2.7 Other Data Files

Relationship to Master Plan and Goals of College

Relationship to Established Priorities

Economic Status of Community and its Projection

Image of the College Within its Community

Success of College in Meeting Community Needs for Occupational Training

Community Support of Existing College Programs as Evidenced at Tax Elections

A. Checklist

What are the goals and objectives of the program?

Is the proposed occupational program in conformity with the college's Master Plan and its long term goals?

Is the proposed vocational program in conformity with the system of priorities established by the college?

What kind of support may be expected from agencies (e.g., increased spending)?

Is the community thriving economically and showing steady growth or has it passed its peak and seemingly headed for a down-turn in its economy?

Would this program be conducted more effectively and at less cost at the agency level?

Does the proposed program meet other needs than Manpower and student interest?

B. Sources

Institutional Research
Program Evaluation
Academic and College Planning
Instructional Operations

B.4.3.0 Report and Conclusions

Produce a written report with conclusions regarding the questions.

(Thus, Institutional Research is a research function drawing objective conclusions based on analysis and interpretation of the data, rather than recommending decisions.)

B.5.0 Development Team

The Development Team is the body of instructional specialists which designs, develops, validates and produces the curriculum materials for implementing the Idea Proposal.

Membership

1. The chairperson, a specialist in the content area of the subject matter to be developed, selects the other members of the Development Team in accord with the necessary skills agreed upon with the Committee. The chairperson has authority and responsibility for decisions during the developmental process.

2. Team members, persons who have various skills and expertise pertinent to the particular project, are responsible for providing the chairperson with advice and other services as needed.

Functions

B.5.1.0 Plan Process

Team members meet together to discuss the project, consider alternatives, reach decisions, and prepare a plan of action and a budget for the project.

1. Develop a plan of action utilizing data from Institutional Research and/or other appropriate sources. The following considerations are suggested in developing a plan of action:

a. Characteristics of the Target Population

   Possible data needs: additional information about the target population.

b. Task Analysis (of the job for which the target population is to be trained).

   Possible data needs: existing or specially prepared task analysis.

c. Program Objectives

   Write student skill development objectives utilizing target population and task analysis data.

d. Determine Courses

   Possible data needs: review of the literature, sample programs and/or courses, consultant, etc. These data may also be utilized for completing the remainder of the suggestions.

e. Sequence Courses

f. Course Objectives

g. Course Content

   Determine concepts and skill training necessary to achieve course objectives.

h. Sequence Course Content

i. Delivery of Course Content

   Decide on effective delivery format for each objective; (e.g., audiovisual, conventional lecture, individualized instruction).

2. Prepare a budget based on the above plan of action and submit it to the Committee for funding.

B.5.2.0 Develop Product

Team members develop curriculum based on the plan of action.

The following procedures are suggested in developing the product:

1. Prepare a work list of tasks for completing the project.

2. Determine roles of team members in accomplishing tasks.

3. Set a time schedule with due dates for the completion of each task.

4. Schedule team meetings as needed for coordinating efforts and evaluating progress.

5. Schedule services needed by the team in advance.

B.5.3.0 Validate Product

Team members conduct validation procedures to establish the effectiveness of the product.

The following procedures are suggested in validating the product:

1. Test the product on a few students (representative of the target population) to determine its effectiveness, and revise if necessary.

2. If units are sequentially dependent on each other, test each unit as it is prepared.

B.6.0 Office of Instruction

The Office of Instruction is administratively responsible for the Operational Units (B.8.0) of the college, and as such it performs a major role in the Program and Curriculum Development Model.

Supervision of the Development Team

The Office of Instruction is responsible for:

1. The Development Team performing its duties satisfactorily.

2. Providing appropriate help to the Development Team.

3. Establishing appropriate budget controls.

Approval

1. New Vocational Programs

Notice of Intent

The Notice of Intent is the application to the State Department of Education for permission to establish a new vocational program only. Following the Committee's decision to develop a program, the Notice of Intent is prepared and submitted, accompanied by supporting data for the State Department of Education and the Educational Coordinating Commission.

Format

a. Description and objectives,
b. Community and societal needs,
c. Duplication and impact on other institutions or segments, and
d. Fiscal impact and priorities.

Procedures

a. Submission to the State Department of Education (SDE) at least six months prior to proposed implementation. The SDE then refers it to the Educational Coordinating Commission (ECC) for study. The ECC studies the application and responds to the State Board of Education.

b. State Board of Education notifies the college of approval or rejection of the application.

Application for Program Approval

Upon receipt of approval of the Notice of Intent, and at least six weeks prior to implementation, the college is required to submit a detailed curriculum plan of the sequence of courses and their contents.

a. Approval by the community college's Board before submission to the State Department of Education.

b. Submission to the State Department of Education for approval.

2. New Non-Vocational Programs, New Courses, Revisions of Programs and Courses

Application for Program and/or Course Approval

Six weeks prior to implementation, the college is required to submit a detailed curriculum plan.

a. Approval by the community college's Board before submission to the State Department of Education.

b. Submission to the State Department of Education for approval.

B.7.0 Operational Units

Approved curriculum goes to the Operational Units (instructional departments) of the college for Implementation (B.9.0), according to the procedures established at the college.

B.8.0 Implementation

In implementation, new curriculum is put into full operation. The following procedures are suggested for implementors of the product:

1. Become thoroughly familiar with the curriculum to be implemented.

2. Carefully follow the curriculum as designed by the Development Team.

3. Note information for use in Revision (B.10.0) concerning any problems observed during use of the product.

B.9.0 Evaluation

Evaluation is the process of obtaining and providing useful information for making educational decisions following the implementation of a program or course. Evaluation of the educational effectiveness of the curriculum should be conducted by the college following at least one full cycle of operation.

Suggested Procedures

The evaluation procedures should be related to the objectives, the associated criteria of success, planned activities established by the program or course, and the data needs of the decision-makers. The evaluation may be conducted in agreement with the Guba-Stufflebeam (CIPP) model with modifications in the model's procedures where required. Four general types of evaluation should be undertaken to provide pertinent information on the curriculum:

1. Context evaluation (e.g., defines the environment, identifies needs and problems).

2. Input evaluation (e.g., examines the use of resources).

3. Process evaluation (e.g., examines plans, activities, and procedures).

4. Product evaluation (e.g., assesses the attainment of curricular goals and objectives).

Once the appropriate types of evaluation have been selected, the design needed to implement the evaluation will be created. As few general purpose designs exist which meet the needs of each situation, each evaluation design must be generated "de novo" so as to be responsive to the evaluation requirements of a specific program or course. However, most evaluation processes will include five major parts:

1. Focusing the evaluation (e.g., defining the decision situations, identifying the evaluation specifications).

2. Collection of information (e.g., specifying the data needs, identifying the population targets, identifying the instruments and methods of data collection, gathering data).

3. Organization of information (e.g., creating and implementing a format for organizing, coding, storing and retrieving the information).

4. Analysis of information (e.g., specifying the procedures for analyzing data, performing the data analyses and displaying the results).

5. Reporting of information (e.g., specifying the audience and formats for the evaluation report, providing the information to the audience).

To meet the evaluation needs of the college, those responsible for evaluation should provide both for continuous, systematic program or course evaluation needs and for unpredictable, ad hoc information needs which may emerge as the programs or courses change. Whether responding to predictable, scheduled evaluation projects or to emergency requests for information, the evaluation procedures must be systematic and encompass as many of the previously stated types of evaluation and parts of evaluation as are required by the decision-makers.

B.10.0 Revision

Recommendations for revisions are made by the Operational Units based on the Evaluation report and other sources of information. They are sent to the Committee via an Idea Proposal, which takes appropriate action to implement the revision (e.g., reactivation of the Development Team if needed, etc.).

The revision process provides for extensive changes in the program or course as well as for their elimination.

Appendix

APPENDIX

CAUTIONS IN THE USE OF MANPOWER DATA

The use of Manpower data in making decisions concerning vocational programs should always be tempered by the knowledge that there are other valid reasons, such as student interest, for operating programs and other criteria than job placement for labeling a program successful. This is not to say that such data are unimportant. On the contrary, they are probably the more important than any other type of information. As a general rule, vocational programs should never be established in the face of insufficient job openings to absorb graduates and programs should not be continued when graduates cannot find employment in the area of their training. However, there are exceptions. The purpose of this paper is to raise some cautions for consideration by planners.

1. The fist caution involves the reliability of Manpower data itself. A frequent complaint about Manpower data is that it is out of date by the time it gets into the planner's hands. Progress is certainly being made in providing more timely information, but there will probably always be some lapsed time. With conditions changing as rapidly as they do, this leaves some room for error. Planners should certainly be alert to the freshness of any data they may be using and to any changing conditions that might affect its reliability.

   Like many other things, the techniques for collecting Manpower data for both supply and demand have presumably improved. Still, there is no infallible way to assure that employers have correctly anticipated and reported demand and that all sources of supply have been taken into account. Both can be quickly and significantly changed by such things as prices, economic conditions, the weather and local conditions. Again, the planner must be alert for such deviations.

Much employment data concerns the future and such data are extremely important and valuable to educational planners. However, planners must realize that the margin of error increases with the distance into the future covered by the projections. Planning assumptions must be made on the best available data and re-evaluated frequently in order to correct for errors.

2. High employment potential is certainly an important consideration in the establishment of need for a given vocational program; however, student interest is also a valid basis for establishing need for a program. Students enter programs to accomplish their own goals and immediate employment is not always among their goals. They should have the same opportunity for vocational training in order to satisfy other goals than employment as do students who take literature, psychology and philosophy. Planners, therefore, should be alert to other reasons than employment for determining need for vocational programs.

3. Planners and program evaluators should also realize that employment data are not the only criteria for measuring the success of a given vocational program. The tendancy is to look at follow-up data on graduates and conclude that because a relatively small number are working in a recognized field for their training that the program is unsuccessful. It may be unsuccessful; however, those graduates who are unemployed or working in other fields may be doing so by choice.

In conclusion, suffice it to say that these cautions have not been raised to detract from the importance and utility of Manpower data. They have been raised to say that planners must not rely solely upon Manpower data. Rather, they should use it wisely by coupling it with other relevant information.